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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,414	02/17/2004	Won-keun Yu	03918-P0040A	1308
24126	7590	04/14/2006	EXAMINER	
ST. ONGE STEWARD JOHNSTON & REENS, LLC 986 BEDFORD STREET STAMFORD, CT 06905-5619			NGUYEN, DONGHAI D	
			ART UNIT	PAPER NUMBER

3729

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/780,414	Applicant(s) YU ET AL.	
	Examiner Donghai D. Nguyen	Art Unit 3729	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 29-35 is/are pending in the application.
 4a) Of the above claim(s) 16-23 and 29-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/17/04 & 7/11/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1-15 in the reply filed on 28 February 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 16-23 and 29-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "control unit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "76" in Fig. 9. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

“Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: --APPARATUS FOR POSITIONING BACK-UP PINS ON A SUPPORT PLATE FOR SUPPORTING SUBSTRATE--.

6. The abstract of the disclosure should be modified to solely direct a claimed apparatus. Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because of the following informalities: “pin 29” (page 10, lines 6) should be: --pin 28--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“a control unit configured to display” is vague and indefinite because it is not known as to what structure elements are in the control unit, further it is unclear as to what part of the control unit being configured (i.e., the camera, the CPU, the display, etc.,)

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-15 as best understood are rejected under 35 U.S.C. 102(b) as anticipated by US Patent 6,212,751 to Hattori.

Regarding claim 1, Hattori discloses an apparatus for positioning back-up pins on a support plate for supporting a circuit board thereon, the apparatus comprising: a back-up pin plate (200, see Fig. 9) having a substantially planar upper surface for positioning back-up pins (201) thereon; a back-up pin stand (236) for placing back-up pins therein; a camera (56, see Fig. 3) for taking an image of a surface of the circuit board (24, See Col. 12, line 63 to Col. 13, line 5) to be supported by a plurality of back-up pins; a control unit (160) configured to display at least one image of the circuit board taken by the camera and to allocate a plurality of support locations for supporting the circuit board (as shown in Fig. 6); and a transfer member (30) adapted to transfer a plurality of back-up pins from the back-up pin stand to the allocated support locations on the back-up pin plate (See Fig. 9). Note that configuring the control unit (160) to display the image including a first image representative of a portion of the surface of the circuit board and a

second image representative of substantially the entire surface of the circuit board is intended use that does not differentiate the claimed control unit from the control unit of Hattori.

Regarding claim 2, Hattori discloses at least a portion of the back-up pin plate includes a magnetically material, and each of the back-up pins includes a magnetic portion for attaching onto the back-up pin plate by a magnetic force between the back-up pin plate and the back-up pin (see Col. 14, lines 19-20).

Regarding claim 3, Hattori discloses the camera (56) is a line charge-coupled device camera (see Fig. 6).

Regarding claim 4, Hattori discloses the first image is a real-time image taken by the camera and the second image is an image composed of a plurality of the real-time images taken by the camera (See Col. 13, lines 19-40).

Regarding claims 5-7 and 10, Hattori discloses the control unit includes a display screen (186), a user interface (170) and/or input device (172 See Fig. 6),

Regarding claim 13, Hattori discloses the user interface comprises a PCB loading mode for loading a circuit board onto the apparatus (See Fig. 1 and Col. 10, lines 19-29).

Regarding claim 14, Hattori discloses the back-up pin stand (236) comprises a plurality of openings (238) for receiving lower portions of the back-up pins (see Fig. 9).

Regarding claim 15, Hattori discloses the camera is coupled with the transfer member for moving together along a Cartesian coordinate (See Fig. 3 and Col. 11, lines 31-34).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 8-9 and 11-12 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori.

Hattori does not disclose the limitations recited in claims 8 and 9. It would have been an obvious matter of design choice to one having ordinary skill in the art at the time the invention was made to use a mouse as input device of the control unit for entry and/or selecting i.e., a particular back-up pin and/or for saving the allocation information in the control unit etc, as recited in the above claims since Applicants have not disclosed that the above structure limitations would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well by Hattori's teaching of the control unit and user interface where the keyboard is used as interface and input device as disclosed at Col. 10, line 18+ of Hattori reference.

The rejection of claims 11 and 12 is as same as the above discussion.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited for their teaching of positioning pins for supporting a substrate.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN

April 05, 2006


MINH TRINH
PRIMARY EXAMINER